CLAIMS:

1.   A bus system comprising a first station and a second station coupled by a bus for transferring signals, said bus being arranged to operate according to a protocol in which said first station repeatedly sends requests for data to said second station, said protocol comprising a first mode for transferring said requests in a first request format at a first

5   communication speed and at least a second mode for transferring said requests in a second request format at a second speed, said second station being arranged to receive requests in a mode selected from a group of modes comprising said first and second modes, and being arranged to give a first indication to said first station if it is being arranged to operate according to said first mode and a second indication if it is being arranged to operate

10   according to said second mode, characterized in that said first station comprises a processor, a controller, and a translator, said processor being operable to generate request properties for requests in said first request format, said controller being operable to generate said requests in said first request format from said request properties, further being operable to transmit said request in said first format to said second station upon detection of said first indication

15   and to forward said request to said translator upon detection of said second indication, and said translator being operable to transmit said request in said second format to said second station.

2.   A bus system according to claim 1, wherein said bus system is a USB system.

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3.   A bus system according to claim 1, wherein said request properties comprise mode information whereby said controller is operable to determine from said mode information if said request is to be transmitted in said first or second format, respectively.

25   4.   A bus system according to claim 1, wherein said second station is assigned an address, said request properties comprise address information whereby said controller is operable to determine from said address information if said request is to be transmitted in said first or second format, respectively.

5.   A bus system according to claim 1, characterized in that said first station also comprises a router for routing said requests transmitted in said first and second modes by said controller and said translator, respectively, to said bus.

5   6.   A bus system according to claim 1, characterized in that said first mode is also conceived for transferring responses in a first response format at said first communication speed and said second mode is also conceived for transferring said responses in a second response format at said second speed, said second station is operable to transmit responses to said first station in a mode selected from a group of modes comprising said first and second

10   modes, said translator is operable to receive said responses in said second response format and to forward said responses to said controller, said controller is operable to receive said responses in said first response format and to generate response properties from said responses in said first response format, and said processor is operable to handle said response properties generated by said controller.

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7.   A bus system according to claim 6, characterized in that said first station also comprises a router for routing said responses transmitted by said second station to said translator and to said controller, whereby said router is operable to route said responses to said controller upon detection of said first indication and to said translator upon detection of

20   said second indication.

8.   A station for use in a bus system comprising a connection for a bus, said station being arranged to operate according to a protocol in which said station repeatedly sends requests to said connection , said protocol comprising a first mode for transferring said

25   requests in a first request format at a first communication speed and at least a second mode for transferring said requests in a second request format at a second speed, characterized in that said station comprises a processor, a controller, and a translator, said translator being operable to generate request properties for requests in said first request format, said controller being operable to generate said requests in said first request format from said request

30   properties, further being operable to transmit said request in said first format to said connection and to forward said request to said translator, and said translator being operable to transmit said requests in said second format to said connection.

9.   A station according to claim 8, wherein said station is a USB host.

10.   A station according to claim 8, wherein said request properties comprise mode information whereby said controller is operable to determine from said mode information if said request is to be transmitted in said first or second format, respectively.

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11.   A station according to claim 8, wherein said request properties comprise address information whereby said controller is operable to determine from said address information if said request is to be transmitted in said first or second format, respectively.

10   12.   A station according to claim 8, characterized in that said station also comprises a router for routing said requests transmitted in said first and second modes by said controller and said translator, respectively, to said connection.

13.   A station according to claim 8, characterized in that said first mode is also
15   conceived for transferring responses in a first response format at said first communication speed and said second mode is also conceived for transferring said responses in a second response format at said second speed, said translator is operable to receive said responses in said second response format from said connection and to forward said responses to said controller in said first format, said controller is operable to receive said responses in said first response format from said connection and to generate response properties from said
20   responses in said first response format, and said processor is operable to handle said response properties generated by said controller.

14.   A station according to claim 13, characterized in that said station also
25   comprises a router for routing said responses received at said connection to said translator and to said controller, whereby said router is operable to route said responses to said controller if said responses are received in said first format and to said translator if said responses are received in said second format.

30   15.   A bus interface for use in a bus system comprising a connection for a bus and an input for receiving request properties from a processor, said bus interface being arranged to operate according to a protocol in which said bus interface repeatedly sends requests to said connection, said protocol comprising a first mode for transferring said requests in a first request format at a first communication speed and at least a second mode for transferring said

requests in a second request format at a second speed, characterized in that said bus interface comprises a controller and a translator, whereby said input is operable to receive request properties for requests in said first request format, said controller being operable to generate said requests in said first request format from said request properties, further being operable to transmit said requests in said first format to said connection and to forward said requests to said translator, and said translator being operable to transmit said requests in said second format to said connection.

16.   A bus interface according to claim 15, wherein said bus interface is a bus interface for a USB host.

17.   A bus interface according to claim 15, wherein said request properties comprise mode information whereby said controller is operable to determine from said mode information if said requests are to be transmitted in said first or second format, respectively.

18.   A bus interface according to claim 17, wherein said request properties comprise address information, whereby said controller is operable to determine from said address information if said requests are to be transmitted in said first or second format, respectively.

19.   A bus interface according to claim 15, characterized in that said bus interface also comprises a router for routing said requests transmitted in said first and second modes by said controller and said translator, respectively, to said connection.

20.   A bus interface according to claim 15, characterized in that said first mode is also conceived for transferring responses in a first response format at said first communication speed and said second mode is also conceived for transferring said responses in a second response format at said second speed, said translator is operable to receive said responses in said second response format from said connection and to forward said responses to said controller in said first format, said controller is operable to receive said responses in said first response format from said connection and to generate response properties from said responses in said first response format, and said bus interface comprises an output for transmitting said request properties to said processor.

21.   A bus interface according to claim 20, characterized in that said station also comprises a router for routing said responses received at said connection to said translator and to said controller, whereby said router is operable to route said responses to said controller if said responses are received in said first format and to said translator if said responses are received in said second format.